

**BOSCH**  
Invented for life

## AutoDome Junior HD Fixed Camera



- ▶ Remote commissioning for simplified installations and hands-free camera positioning and focusing
- ▶ HD 1080p/30, 720p/60, and 720p/30 resolutions
- ▶ 160x zoom (10x optical, 16x digital)
- ▶ Quad video streaming generates simultaneous H.264, M-JPEG, and JPEG video streams
- ▶ ONVIF conformant; provides interoperability with other conformant systems
- ▶ National Transportation Communications for ITS Protocol (NTCIP) conformant
- ▶ Embedded Intelligent Video Analytics (IVA) for reliable detection, tracking, analysis, and search capabilities
- ▶ Durable, rugged design with an acrylic bubble
- ▶ Power over Ethernet Plus (IEEE 802.3at, class 4 compliant)
- ▶ A perfect complement for the Bosch AutoDome Junior HD PTZ camera to match aesthetics and discreetness

The AutoDome Junior HD Fixed camera is a rugged, extremely compact, and easy to install camera featuring remote commissioning. The remote commissioning feature simplifies installation by allowing operators the ability to position and focus the camera via a remote head-end unit.

The AutoDome Junior HD Fixed camera provides direct network connection using H.264 and JPEG compression and bandwidth throttling to efficiently manage bandwidth and storage requirements while delivering outstanding image quality. The AutoDome Junior HD Fixed camera provides complete network-based control of all functionality including alarms and web-based configuration of all settings.

The AutoDome Junior HD Fixed camera conforms to the ONVIF (Open Network Video Interface Forum) specification guaranteeing interoperability between network video products regardless of manufacturer.

### AutoDome Junior HD Fixed Camera highlights

With a dome diameter of only 5.04 inches (12.8 cm), the AutoDome Junior HD Fixed camera is nearly 50% smaller than the Bosch AutoDome. These compact dimensions make the AutoDome Junior HD Fixed camera ideal for discrete surveillance applications.

The AutoDome Junior HD Fixed camera maximizes your security investment by integrating with Bosch video products including the Bosch Video Client, the Bosch Recording Station, as well as the full range of Bosch video over IP products.

The AutoDome Junior HD Fixed camera is simple to install and to use and is available with surface, wall, recessed, and pipe mount options.

### System Overview

#### Remote commissioning

The AutoDome Junior HD Fixed camera allows an operator to commission the camera from a remote head-end unit, eliminating the need for hands-on camera positioning and focusing. Once mounted, the operator can use the built-in Web interface to remotely position the camera and fix its location without removing the bubble or connecting a monitor directly to the camera.

#### High-performance 160x day/night camera

The AutoDome Junior HD Fixed camera has a 1/2.5-inch progressive scan CMOS sensor. With up to 1080p resolution and sensitivity to below 1.0 lux, the AutoDome Junior HD Fixed camera offers exceptional performance at a very affordable price.

#### Ultra-efficient H.264 encoding

The AutoDome Junior HD Fixed camera uses an advanced H.264 encoder to create DVD-quality streaming video at ultra-low bit rates. Use of H.264 encoding, bandwidth throttling, and multicasting capabilities, minimizes bandwidth and storage usage to significantly reduce costs. The AutoDome Junior HD Fixed camera supports 1080p, 720p, 4CIF, and CIF resolutions.

#### Multiple video streams

Bosch's innovative Quad-streaming feature enables the AutoDome Junior HD Fixed camera to deliver three H.264 streams together with an M-JPEG stream in full and reduced bandwidth modes. During full bandwidth operation (full HD 1080p30 or high frame rate 720p60) the second stream is an exact copy of the first stream. In reduced band-width mode (720p30), the second stream is an independently configurable, downscaled-resolution stream. In both modes the third H.264 stream consists of HD I-frames only. These streams facilitate bandwidth-efficient viewing and recording options as well as integration with third-party video management systems.

#### ONVIF conformant

The AutoDome Junior HD Fixed camera conforms to the ONVIF (Open Network Video Interface Forum) specification guaranteeing interoperability between network video products regardless of manufacturer. ONVIF conformant devices are able to exchange live video, audio, metadata and control information and ensure that they are automatically discovered and connected to network applications such as video management systems.

#### Intelligence

With built-in video content analysis, the standard AutoDome Junior HD Fixed camera reinforces the Intelligence-at-the-Edge concept where edge devices become increasingly intelligent. This camera comes with built-in MOTION+ video motion detection. This motion detection algorithm is based on pixel change and includes object size filtering capabilities and sophisticated tamper detection capabilities.

The AutoDome Junior HD Fixed camera also features Bosch's Intelligent Video Analysis (IVA). IVA is state-of-the-art intelligent video analysis that reliably detects, tracks, and analyzes moving objects while suppressing unwanted alarms from spurious sources in the image.

#### Rugged reliability

A heavy-duty, tamper-resistant aluminum housing protects the camera from vandalism and theft, ensuring the AutoDome Junior HD Fixed camera continues to deliver critical images even in the toughest environments.

As with all Bosch products, the AutoDome Junior HD Fixed camera has been subjected to the industry's most comprehensive and demanding battery of endurance tests such as HALT (highly accelerated life testing) to make sure it will hold up through years of use. And of course, it comes with Bosch's industry-leading 3-year warranty.

### Functions

The following are some of the features that make the AutoDome Junior HD Fixed camera the perfect fit for a variety of indoor surveillance applications.

#### Ease of installation and servicing

The AutoDome Junior HD Fixed camera has been designed for quick and easy installation; a key feature from Bosch CCTV products. The dome comes fully assembled and ready for surface mount applications. Also available are wall, recessed, and pipe mounting kits which allow the AutoDome Junior HD Fixed camera to be easily adapted for the individual site requirements. Available in white or charcoal.

The AutoDome Junior HD Fixed camera allows an operator to commission the camera from a remote head-end unit, eliminating the need for hands-on camera positioning and focusing, and the need for special equipment at the camera site.

### iSCSI device support

Built-in iSCSI support allows the AutoDome Junior HD Fixed camera to stream video directly to an iSCSI RAID array. This enables local video storage just like a conventional DVR without streaming high bandwidth video across the network. Local recording, or Recording at the Edge, minimizes bandwidth usage and makes system recording performance totally independent from network performance.

### Network-based control and configuration

The AutoDome Junior HD Fixed camera enables full camera control and configuration capabilities over the network. Operators or technicians can configure alarm management functions virtually anywhere without need for additional wiring.

The embedded web server lets the installer access all the user settings, make camera adjustments, and update firmware via a standard web browser.

### Device management

Simple Network Management Protocol (SNMP) support facilitates the remote monitoring and management. The AutoDome Junior HD Fixed camera provides full support for SNMP v3.

### Superior privacy masking

The AutoDome Junior HD Fixed camera allows for a total of 15 individual, easy to configure privacy masks, with up to 15 displayed in the same scene. As the camera is zoomed each mask changes size smoothly and quickly ensuring that the covered object cannot be seen. You also have a choice of black, gray, or white masking characteristics.

### Power over Ethernet

Power for indoor camera models may be supplied via a Power over Ethernet Plus (PoE+, IEEE 802.3at, class 4) compliant network cable connection. With this configuration, only a single cable connection is required to power and to control the camera while also viewing images from the camera.

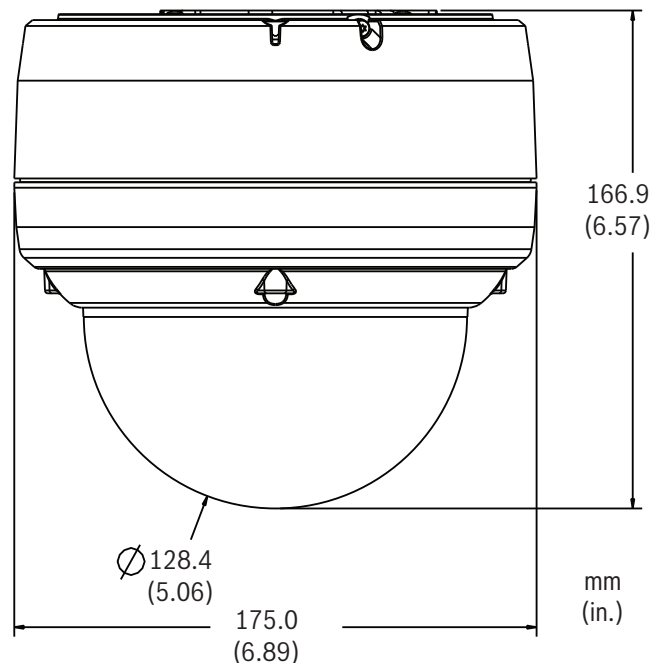
### Viewing

View the video on a PC using a Web browser or via the Bosch Video Client, the Bosch Recording Station, the Bosch Video Management System, or integrate it into a third party video management system.

- Frame rate: 25 and 30 frames/s
- Complies with the 296M-2001 Standard in:
- Resolution: 1280x720
  - Scan: Progressive
  - Color representation: complies with ITU-R BT.709
  - Aspect ratio: 16:9
  - Frame rate: 25, 30, 50 and 60 frames/s

|                                     |  |
|-------------------------------------|--|
| Electromagnetic Compatibility (EMC) | Complies with FCC Part 15, ICES-003, and CE regulations      |
| Product Safety                      | Complies with CE regulations, UL, CSA, EN, and IEC Standards |
| Environmental                       | IP54<br>(excluding VJR-A3-IC mounting option)                |

### Installation/Configuration Notes



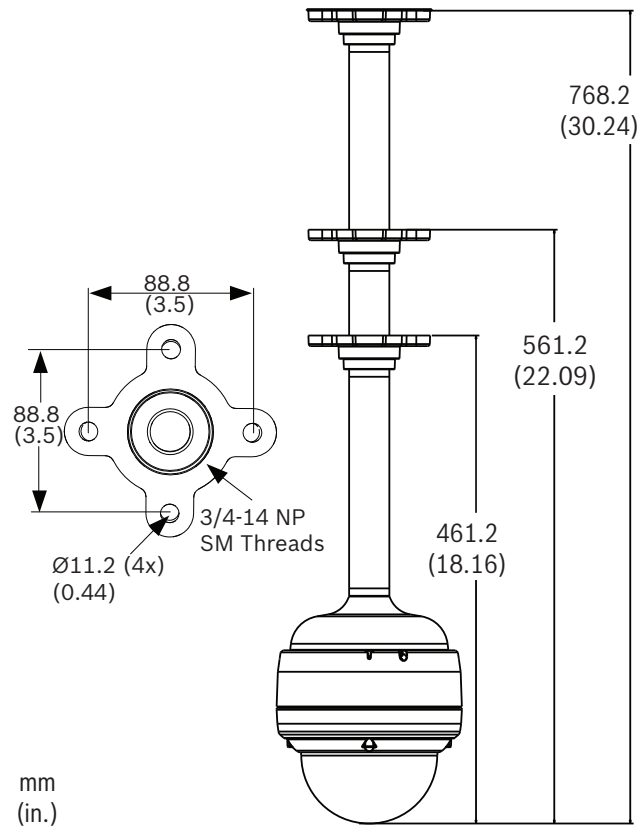
*AutoDome Junior HD Fixed Camera Dimensions*

## Certifications and Approvals

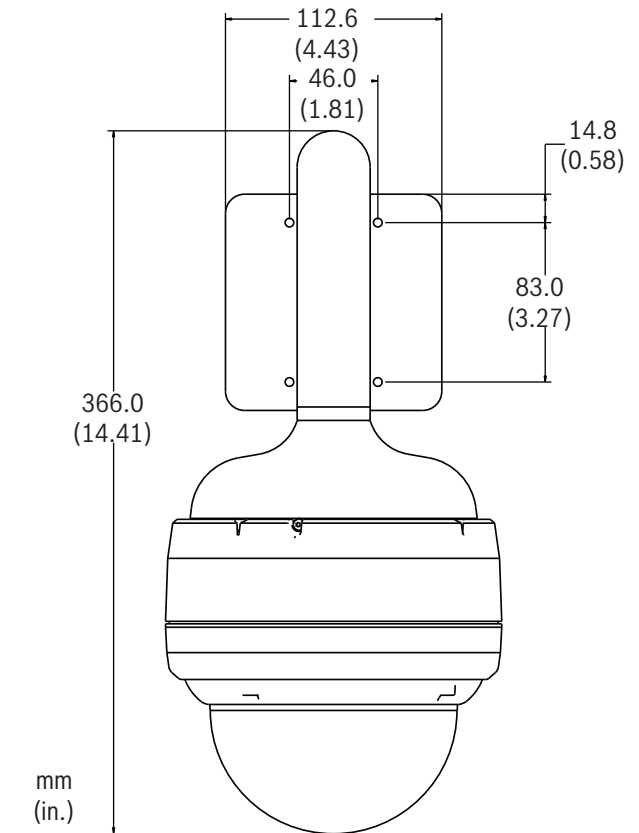
### HD standards

Complies with the SMPTE 274M-2008 Standard in:

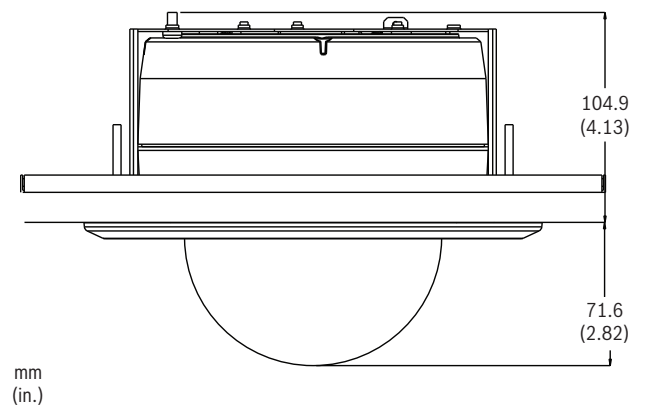
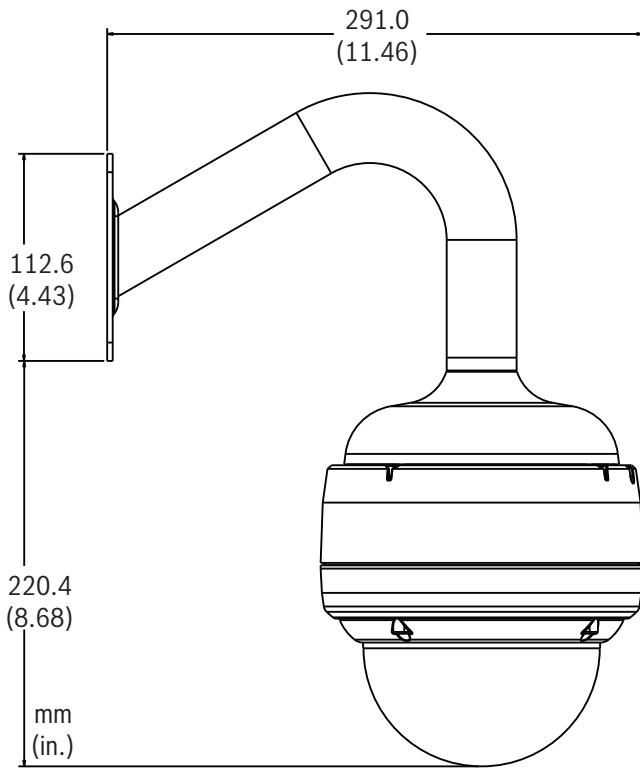
- Resolution: 1920x1080
- Scan: Progressive
- Color representation: complies with ITU-R BT.709
- Aspect ratio: 16:9

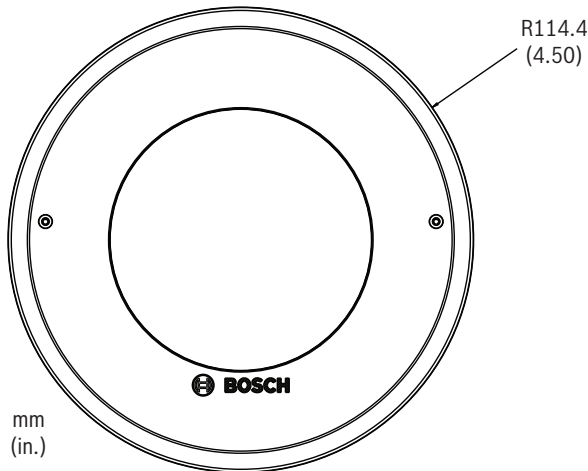


Pipe Mount Dimensions

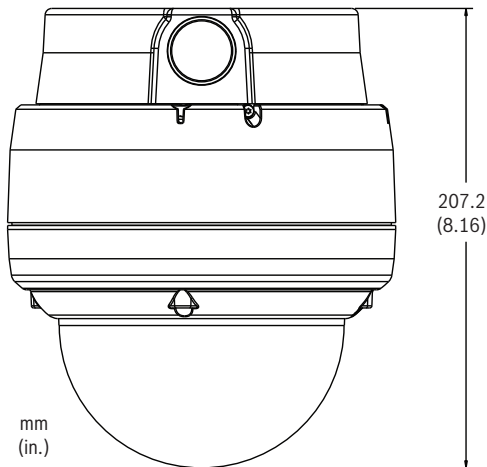


Wall Mount Dimensions





In-Ceiling / Recessed Mount Dimensions



Surface Mount Dimensions

## Technical Specifications

### 10x HD Day/Night Camera

|                        |  |
|------------------------|--|
| Imager                 | 1/2.5 inch progressive scan CMOS   |
| Number of Pixels       | Effective 4 Megapixels   |
| Aspect Ratio           | 16:9   |
| Lens                   | Motorized varifocal lens, 2.4 to 24 mm<br>10x optical zoom<br>(F1.8/F2.5 to close) |
| Focus                  | Single-shot autofocus  |
| Iris                   | Automatic with manual override   |
| Field of View          | Horizontal: 5.5° to 50.6°<br>Vertical: 3.1° to 29.3°                               |
| Automatic Gain Control | Normal, Medium, High, Fixed  |
| Synchronization        | Internal   |
| Aperture Correction    | On/Off   |
| Digital Zoom           | 16x  |

|                                   |  |                           |
|-----------------------------------|--|---------------------------|
| Sensitivity(typical) <sup>1</sup> | <b>30 IRE<sup>2</sup></b>  | <b>50 IRE<sup>2</sup></b> |
| <b>Day Mode</b>                   |  |                           |
| SensUP Off                        | 1.2 lx   | 2.0 lx                    |
| SensUP On (64x)                   | 0.038 lx   | 0.063 lx                  |
| <b>Night Mode</b>                 |  |                           |
| SensUP Off                        | 0.06 lx  | 0.1 lx                    |
| SensUP On (64x)                   | 0.0018 lx  | 0.0031 lx                 |
| Electronic Shutter Speed (AES)    | 1x to 64x; 1/50 (1/60) to 1/10000  |                           |
| Signal to Noise Ratio             | > 50 dB (AGC off)  |                           |
| Backlight Compensation            | On/Off   |                           |
| White Balance                     | ATW, Indoor, Outdoor, AWB Hold, Extended ATW, Manual (adjustable R and B signals in Manual mode) |                           |
| Day/Night                         | Monochrome, Color, Auto  |                           |

1. F1.8, 1/30 (1/25) shutter, maximum AGC.

2. Tinted bubble adds 0.8 f-stop loss.

### Software Control

|                      |  |
|----------------------|--|
| Camera Setup/Control | Via Internet Explorer Web browser version 7.0 version or later, Bosch Configuration Manager, or BVMS |
| Software Update      | Firmware upload  |

### Network

|                  |  |
|------------------|--|
| Standards        | H.264 (ISO/IEC 14496-10), M-JPEG, JPEG   |
| Streaming        | Individually configurable streams in H.264 and M-JPEG, configurable frame rate and bandwidth;  |
| • 1080p30        | One (1) H.264 1080p30 stream plus one (1) M-JPEG and one (1) I-frame stream  |
| • 720p60         | One (1) H.264 720p60 stream plus one (1) M-JPEG and one (1) I-frame stream   |
| • 720p30         | Two (2) independently configurable H.264 streams:<br>One (1) H.264 720p30 stream,<br>One (1) H.264 BP+ or H.264 MP SD stream, plus one (1) M-JPEG and one (1) I-frame stream |
| GOP Structure    | IP, IBP, IBBP  |
| Data Rate        | 9.6 kbps to 6 Mbps   |
| Overall IP Delay | 240 ms   |

### Resolutions and Frame Rates

|                    |             |
|--------------------|-------------|
| • 1080p30          | 1920 x 1080 |
| • 720p60           | 1280 x 720  |
| • 720p30           | 1280 x 720  |
| • 4CIF/D1 (30 ips) | 704 x 480   |
| • CIF (30 ips)     | 352 x 240   |

### Network

|           |   |
|-----------|---|
| Protocols | RTP, Telnet, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/V3, ICMP, ARP, SMTP, SNMP, RTSP, 802.1x, iSCSI, DynDNS, UPnP |
|-----------|---|

|                            |  |
|----------------------------|--|
| NTCIP Protocols            |  |
| • CCTV Camera Control      | NTCIP 1205   |
| • Application Layer        | SNMP per NTCIP 1101:1996 & NTCIP 2301                                      |
| • Transport/Network Layers | TCP/IP per NTCIP 2202:2001   |
| • Sub-network Layer        | PMPP (Point to Multi-Point Protocol) per NTCIP 2101:2001 & NTCIP 2102:2003 |
| Ethernet                   | 10-Base T/100 Base-TX, auto-sensing, half/full duplex, RJ45                |
| PoE+                       | IEEE 802.3at, class 4  |

#### Electrical

|               |  |
|---------------|--|
| Rated Voltage | 24 VAC ± 10%, 50/60 Hz or PoE+ (IEEE 802.3at, class 4) |
| Power Draw    | 14 W typical   |

#### Environmental

|                       |   |
|-----------------------|---|
| Operating Temperature | –10°C to 40°C (14°F to 104°F)                 |
| Storage Temperature   | –20°C to 60°C (–4°F to 140°F)                 |
| Operating Humidity    | 0% to 90% relative, non-condensing            |
| Water/Dust Protection | IP54<br>(excluding VJR-A3-IC mounting option) |

#### Miscellaneous

|                     |  |
|---------------------|--|
| Masking             | Fifteen (15) individually configurable privacy masks   |
| Protocol Support    | Bosch (OSRD), ONVIF  |
| Supported Languages | English, German, Dutch, French, Italian, Spanish, Portuguese, Polish, Russian, Chinese, and Japanese |

#### User Connections

##### Power

|                       |   |
|-----------------------|---|
| • PoE+, Indoor Models | RJ-45 100 Base-TX Ethernet PoE+ IEEE 802.3at, class 4 |
| • Camera, All Models  | 24 VAC, 50/60 Hz                                      |
| Video and Control     | RJ-45 100 Base-TX Ethernet                            |
| Alarm Input (2)       | NC/NO   |
| Alarm Output          | Open collector NPN<br>32 VDC @ 150 mA max             |
| Audio                 | 9 K Ohm typical 5.5 Vp-p max                          |

#### Construction

|                          |                                       |
|--------------------------|---------------------------------------|
| Size (Diameter x Height) | 153.0 x 133.0 mm<br>(6.02 x 4.61 in.) |
| Bubble Size              | 128.0 mm (5.04 in.)                   |
| Weight                   | 1.92 kg (4.24 lb)                     |
| Material                 |                                       |
| • Housing                | Cast aluminum                         |
| • Bubble                 | Acrylic                               |
| Color                    | White or Charcoal                     |

#### Ordering Information

##### VJR-F801-ICCV Fixed Indoor 10x AutoDome Junior HD with IVA, Charcoal, Clear Bubble

VJR-F801-ICCV

Indoor AutoDome Junior HD Fixed camera with IVA, charcoal, 10x day/night camera with clear bubble

##### VJR-F801-IWCV Fixed Indoor 10x AutoDome Junior HD with IVA, White, Clear Bubble

VJR-F801-IWCV

Indoor AutoDome Junior HD Fixed camera with IVA, white, 10x day/night camera with clear bubble

##### VJR-F801-ICTV Fixed Indoor 10x AutoDome Junior HD with IVA, Charcoal, Tinted Bubble

VJR-F801-ICTV

Indoor AutoDome Junior HD Fixed camera with IVA, charcoal, 10x day/night camera with tinted bubble

##### VJR-F801-IWTV Fixed Indoor 10x AutoDome Junior HD with IVA, White, Tinted Bubble

VJR-F801-IWTV

Indoor AutoDome Junior HD Fixed camera with IVA, white, 10x day/night camera with tinted bubble

#### Accessories

##### UPA-2450-60 Power Supply

UPA-2450-60

120 VAC, 60 Hz, 24 VAC, 50 VA Out

##### UPA-2450-50 Power Supply

UPA-2450-50

220 VAC, 50 Hz, 24 VAC, 50 VA Out  
For use with certain 24 VAC camera models.

##### VJR-A3-IC AutoDome Junior HD Indoor In-ceiling Mount

VJR-A3-IC

##### VJR-A3-SP AutoDome Junior HD In-ceiling Support Kit

VJR-A3-SP

##### VEZ-A2-JC Surface Mount Adapter

VEZ-A2-JC

Charcoal adapter for AutoDome Junior surface installations

##### VEZ-A2-JW Surface Mount Adapter

VEZ-A2-JW

White adapter for AutoDome Junior surface installations

### Ordering Information

|   |                     |
|---|---------------------|
| <b>VEZ-A2-PC AutoDome Junior Pipe Mount</b><br>Charcoal                       | <b>VEZ-A2-PC</b>    |
| <b>VEZ-A2-PW AutoDome Junior Pipe Mount</b><br>White                          | <b>VEZ-A2-PW</b>    |
| <b>VEZ-A2-WC AutoDome Junior Wall Mount</b><br>Charcoal                       | <b>VEZ-A2-WC</b>    |
| <b>VEZ-A2-WW AutoDome Junior Wall Mount</b><br>White                          | <b>VEZ-A2-WW</b>    |
| <b>VJR-SBUB2-CL AutoDome Junior HD Clear</b><br><b>Bubble</b>                 | <b>VJR-SBUB2-CL</b> |
| <b>VJR-SBUB2-TI AutoDome Junior HD Tinted</b><br><b>Bubble</b>                | <b>VJR-SBUB2-TI</b> |
| <b>VJR-A3-IC54 AutoDome Junior HD</b><br><b>Plenum-rated In-ceiling Mount</b> | <b>VJR-A3-IC54</b>  |

### Software Options

|   |                     |
|---|---------------------|
| <b>MVC-FENC-AES BVIP AES 128 Bit</b><br><b>Encryption</b><br>BVIP AES 128-bit encryption site license.<br>This license is required only once per installation. It enables encrypted communication between BVIP devices and management stations. | <b>MVC-FENC-AES</b> |
|---|---------------------|

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